FARRAGUT SQUARE JAPANESE PAGODA TREE
(Farragut Square *Sophora japonica*)
NPS Witness Tree Protection Program
National Mall & Memorial Parks
17th Street, NW, between I and K streets
East side of Farragut Square
Washington
District of Columbia

HALS DC-5
DC-5

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN LANDSCAPES SURVEY
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

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(Farragut Square *Sophora japonica)*

HALS No. DC-5

Location:	17th Street, NW, between I and K streets, east side of Farragut Square, Washington, District of Columbia
Owner/Manager:	U.S. Government, National Park Service
Present Use:	Ornamental and shade tree
Significance:	The Farragut Square Japanese Pagoda Tree (*Sophora japonica*) is a character defining feature of Farragut Square and is significant because of its longevity and its association with the transformation of an undeveloped tract of land into a small urban park, Washington D.C.'s first memorial to a naval hero.
Author & Discipline:	Jonathan Pliska, Landscape Architectural Historian, 2006
Project Information:	The Witness Tree Protection Program was a pilot project undertaken by the Historic American Landscapes Survey and the National Capital Region of the National Park Service. The principals involved were Richard O'Connor, Chief, Heritage Documentation Programs; Paul D. Dolinsky, Chief, Historic American Landscapes Survey; Darwina Neal, Chief, Cultural Resources, National Capital Region; Jonathan Pliska, Historian, Historic American Landscapes Survey; Jet Lowe and James Rosenthal, Photographers, Heritage Documentation Programs.

PART I. HISTORICAL INFORMATION

The 1811 catalog for New York City's Elgin Botanic Garden, America's first such institution, marks the earliest recorded introduction of the Japanese pagoda tree in the United States.[1] Although the species' geographic range subsequently extended to cover much of the United States, it was not widely used in nineteenth or twentieth-century landscape designs, but was often grown in the collections of arboretums, botanic gardens, and large estates.[2] This rarity is surprising given the species' pleasant appearance and

[1] Leslie Turek, "*Styphnolobium japonicum*: An Ancient Tree Thrives in the City" (paper written for Radcliffe Seminars course "Plants in Historic Landscapes, 21 November 1995), http://www.leslie-turek.com/LandscapePapers/PagodaTree.html (accessed 13 June 2006).
[2] Ibid.

heartiness, as well as the extensive plantings of ornamental trees in America. In 1870, Frank J. Scott, disciple of famed landscape architect A. J. Downing, commented on this anomaly, saying that "considering the delicacy of its foliage, its purity and depth of color, and the hardiness of the tree, it is curious that so few fine specimens of this tree are yet to be seen in this country."[3] His observation would typify commentary on *Sophora japonica* until the late twentieth-century, when landscape architects began including the species in greater numbers of urban designs because of its adaptability to poor environmental conditions.[4]

The first documentation of the Farragut Square Japanese Pagoda Tree occurs in a 1905 park plan for Farragut Square, but the specimen likely dates back another thirty-two years to 1873. In that year the Office of Public Buildings and Grounds, the land management agency then in charge of the District's public property, approved a budget of $5,000 for improvements to Farragut Square in preparation for the 1881 dedication of the park and installation of the Adm. David Glasgow Farragut Statue at its center. The statue was dedicated with a full-scale parade on 25 April 1881, the nineteenth anniversary of Farragut's 1862 Civil War victory at the Battle of New Orleans. It is cast from the propellers of the USS Hartford, the ship upon which he reportedly lashed himself to the rigging during the Battle of Mobile Bay and ordered, "Damn the torpedoes! Full speed ahead!" Preceding developments included the construction of the statue's elliptical base, lampposts, drinking fountains, and an iron post-and-chain fence. Grass, flowers, shrubs, and trees were also planted during this time.[5] Although the precise planting date for the Farragut Square Japanese Pagoda Tree is unknown, given the infrequent use of its species the tree was almost certainly specially selected to appear in the park, and therefore would have been incorporated into the landscaping plan early on. Regardless of its specific date of planting, the tree is remarkable in that it is one of the rare examples of a late nineteenth or early twentieth-century Japanese pagoda tree located outside of a specialized horticultural institution or wealthy estate.

PART II. BIOLOGICAL INFORMATION

Commonly known as the Japanese pagoda tree or Chinese scholar tree, the famous botanist Linnaeus (1707-78) assigned this species the botanical name *Sophora japonica* in his 1767 taxonomic work *Mantissa plantarum*.[6] Although native to China and Korea, this designation means "a tree with pea-like flowers" that is "of or from Japan."[7] This

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[3] Frank J. Scott, *The Art of Beautifying Suburban Home Grounds of Small Extent* (New York: D. Appleton and Co., 1870), 393.
[4] Turek.
[5] Elizabeth J. Barthold, "Farragut Square," (Washington, D.C.: Historic American Buildings Survey (HABS) No. DC-671, National Park Service, 1990-93), 3.
[6] Re-assigned in the nineteenth-century as *Styphnolobium japonicum* by Heinrich Wilhelm Schott (1794-1865), both botanical names are still in use today.
[7] Liberty Hyde Bailey and Ethyl Hyde Bailey, "*Sophora japonica*," in *Hortus Third: A Concise Dictionary of Plants Cultivated in the United States and Canada*, revised and expanded by the staff of the Liberty Hyde Bailey Hortorium, Cornell University (New York: Macmillan Publishing Co., Inc., 1976), 1058;

misnomer likely resulted from the species' subsequent proliferation in Japan, and both common names apparently originated from the frequent plantings around Buddhist temples.[8] In addition to *japonica*, approximately fifty other species exist within the genus *Sophora*, classified under the family Leguminosae and subfamily Faboideae. Following the species' 1811 introduction to North America, its geographic range expanded to cover the majority of the contiguous United States, but is noticeably absent from much of the Midwest and northern Great Plains.[9]

Sophora japonica is often identified by its distinctive green bark, which led nineteenth-century horticulturist Henry Winthrop Sargent to extol, "we hardly know anything more ornamental or striking; even in winter, the long slender branches of beautiful bright green render it most attractive."[10] The species is also recognized by its leaves, where seven small, ovate leaflets, each less than 2" in length, together comprise one larger compound leaf. These leaves are of the odd-pinnate variety, where one or more pairs of leaflets are arranged along the sides of the leaf's axis, with a single terminal leaflet at the tip of the stalk (rachis).[11] In 1870, Scott praised the foliage as "a deep velvety green that is unequaled by any deciduous tree we know of," and noted, "the leaves are among the last to surrender to autumn frosts, and turn to a yellowish-green before they fall."[12] Likewise, its namesake pea-shaped flowers are showy and vibrant, range in color from gray to yellow, and are usually among the last ornamental tree blossoms – typically from the end of July to August in the northern states.[13] During summer and autumn the species also produces an elongated, pod-shaped fruit that varies in length from 3" to 12". Upon drying, this yellowish-brown colored fruit splits along the seam of its protective coating and releases many individual seeds.[14]

Typically, *Sophora japonica* grows to heights of 50' to 75' with a comparable crown spread, although significant variation occurs between trees.[15] Although it has not been

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Dave Whitinger, "Botanary, the Botanical Dictionary," in *Dave's Garden*, 2006, http://davesgarden.com/botanary (accessed 12 June 2006).

[8] Royal Botanic Gardens, Kew, "Heritage Trees: Pagoda Tree, *Sophora japonica*," in *Royal Botanic Gardens, Kew*, 2006, used with the permission of the Trustees of the Royal Botanic Gardens, Kew, http://www.rbgkew.org.uk/plants/trees/sophora_japonica.html (accessed 14 June 2006).

[9] Edward F. Gilman and Dennis G. Watson, Sophora japonica: *Scholar Tree* (Gainsville, Fla.: University of Florida, Institute of Food and Agricultural Sciences, November 1993), http://edis.ifas.ufl.edu/ST541 (accessed 12 June 2006).

[10] Henry Winthrop Sargent, supplement to *A Treatise on the Theory and Practice of Landscape Gardening,* 9th ed., 1895, by Andrew Jackson Downing (Sakonnet, R.I.: Theophrastus, 1977), 467.

[11] Liberty Hyde Bailey and Ethyl Hyde Bailey, "Compound Leaf," in *Hortus Third: A Concise Dictionary of Plants Cultivated in the United States and Canada*, revised and expanded by the staff of the Liberty Hyde Bailey Hortorium, Cornell University (New York: Macmillan Publishing Co., Inc., 1976), 1212.

[12] Scott, 393.

[13] Turek.

[14] Gilman and Watson; Jeffery L. Reimer and Walter Mark, *SelecTree: A Tree Selection Guide* (San Luis Obispo, Calif.:Urban Forest Ecosystems Institute, 2004), California Polytechnic State University, http://selectree.calpoly.edu (accessed 21 June 2006).

[15] Michael A. Dirr, *Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses*, 5th edition (Champaign, Ill.: Stipes Publishing L.L.C., 1998), 948.

measured, visual inspection indicates that the Farragut Square Japanese Pagoda Tree has met or exceeded this size. Moreover, the Farragut Square Japanese Pagoda Tree dates to at least 1905 and is at minimum 101 years of age. Given its exceptional size and moderately slow growth rate of 1' to 2' per year, it more likely dates back to the 1873 improvement program. Regardless, the typical lifespan for the species is fifty to 150 years, making this tree physiologically mature and chronologically old.[16] All trees eventually die, and the Farragut Square Japanese Pagoda Tree currently exhibits the initial signs of declining health, resulting in a fair but tenuous condition assessment. Several major branches are cabled together in order to provide the tree with added support against the strains of weather and its own weight. There is also evidence of significant dieback.

Sophora japonica has long been touted as for its adaptability to the urban environment. Able to inhabit a wide variety of soil types, from alkaline to acidic, clay to sandy, and wet to well-drained, the species is also highly drought tolerant and moderately resistant to the aerosol salts commonly applied to roads during the winter months. Suitable for plantings near streets, patios, and decks, as well as within parking lot islands and highway medians, the species is a versatile addition to a city's landscape.[17] The declining health of the Farragut Square Japanese Pagoda Tree is therefore somewhat unexpected. However, environmental conditions affect each member of a species individually, and this specimen may simply be more impacted by Washington's heavily urbanized downtown. Likewise, at between 101 and 133 years of age, it is simply nearing the end of its life expectancy. Most likely, the tree's current condition stems from a combination of these factors.

[16] Reimer and Mark.
[17] Gilman and Watson.